



## Water Quality Technical Forum Report

#### Chlorine Residual and Coliform Data

There were no positive coliform samples in purveyor areas during March 2006. Average chlorine residual concentrations in the purveyor distribution systems ranged from 0.3 to 1.2 mg/L, with an overall average of 0.9 mg/L. The target chlorine residual at the Tolt Treatment facility is 1.5 mg/L and the Cedar target residual is 1.4 mg/L. There have been very few samples with chlorine less than 0.2 mg/L and no positive HPC samples.

#### Taste and Odor

The taste and odor panel meets every other week. Samples are rated on a scale from 1 to 9, with 1 representing the best and 9 representing the worst. The taste and odor flavor rating assessment (FRA) for the Cedar supply (Lake Youngs treated) samples in March were 1.6 and 1.8. The two Tolt supply results were 1.2 and 1.3 with a slight chlorinous taste. If you would like to receive a weekly update of the taste and odor panel results, please e-mail Moya Joubert at moya.joubert@seattle.gov.

The spring algae bloom is still occurring in Lake Youngs. The algae have not been affecting the taste, but may cause an increase in filter clogging calls.

#### **Total Coliform Rule**

Just a reminder: anytime there is a change to your population numbers submitted to Department of Health (on the WFI form), please send a copy of the new information to the Water Quality Laboratory. This way we can make sure we always schedule enough coliform samples to meet DOH requirements.

SPU Contact: Wylie Harper, 206 684-7880 or Lynn Kirby, 206 684-0216.



On the web at http://www.savingwater.org

#### **MARKETING**

Saving Water Partnership wins two PNWS-AWWA Communication and **Conservation Awards** 

Congratulations to Nota Lucas and Mike Mercer, whose entries won first place in award categories in the American Water Works Association's Pacific Northwest Chapter awards. Nota's entry was awarded first place in the Small Printed Piece category for her work on the "The Plant List", and Mike's entry won first place in the Youth Conservation category for the "Waterbusters Game." Both winners will receive an engraved plate at the awards banquet held in Spokane the evening of May 19th at the Annual PNWS-AWWA



Conference. Details can be found on the AWWA Pacific Northwest Section web site at

www.pnws-awwa.org

CONTACT: Arece Hampton (206) 733-9137

#### YOUTH EDUCATION

### Scope Set for Youth Ed Web Page Makeover

Work is progressing on the revision of the Youth Education Web Page. Based on ideas contained in exemplary sites from Nevada and Texas, a scope of work is being defined that will be more accessible and attractive for use by K-12 age students. Existing graphics will be used including the ever-popular Bert the Salmon and Phil Dumpster characters to help users navigate the Students will be able to select pages appropriate to their age group with activities and information. These will be broken out in K-2, 3-6, 7-12 grade age ranges. This first phase of the revision will incorporate materials that exist on the present youth web page. New activities and information are planned to be added in phases over the next two years. Extensive student usability tests are planned to ensure that the content is appealing and useful. If all goes well, work should be done in time for the summer promotion of the popular Waterbusters game. Existing teacher and parent information will remain unchanged and accessible on the Saving Water web page.

CONTACT: Mike Mercer (206) 684-0570

### **RESIDENTIAL INDOOR** Showerhead & Faucet Aerator Distribution Being Planned

Planning for a regional showerhead and faucet aerator distribution continues to move ahead.



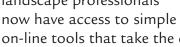
On March 14, staff submitted a request to wholesale partners to provide single family customer data in order to prepare a mailing to invite customers to receive a free showerhead and faucet aerator. The data that is being requested is name, address, and zip code of single-family customers in your service territory. Using a direct-mail service, we will send them a brochure that explains the benefits of exchanging the old showerhead and faucet aerator for the new better than code fixtures. We will be contacting shortly those wholesale partners who have not yet submitted data. We will be sending you all a copy of the brochure and an example of the package your customers will receive if they participate in the program.

CONTACT: Arece Hampton, (206) 706-7464

#### RESIDENTIAL LANDSCAPE

### Reduce the Expense of Landscape Irrigation: On-line Tools and Rebates Available to Customers

Typically automatic irrigation systems waste up to 40-50 percent of the water used because of poor scheduling. Customers, facility maintenance and landscape professionals







## Harnessing Spring Gardening Fever for Conservation

Spring is not only a time of plant growth, but is also the busiest time for plant and garden supply sales. Several agency and retailer partnerships will tap into this gardening energy and encourage customers to make choices that conserve water, improve soil and reduce pesticides and fertilizers. Saving Water Partnership (SWP) will support the regional Northwest Natural Yard Days program which provides discounted products at retail locations throughout King County from April 15 - May 15. In conjunction with Yard Days, SWP will host the Savvy Gardener Lecture series with classes at six nurseries. The Savvy classes will continue after Yard Days ends with two classes hosted at a Shoreline designer's garden and a hands-on drip irrigation class at a public demonstration garden in Seattle. SWP teamed up with Woodinville Water District on April 22nd to offer eight free lectures from gardening celebrities including Ciscoe Morris and Marianne Binetti. For a list of Northwest Natural Yard Days retailers, go to www.yarddays.com. Visit www.savingwater.org after April 1st for the full Savvy Gardener class series. CONTACT: Liz Fikejs, (206) 615-0516

#### COMMERCIAL

## Planning for a Wholesale Customer Business Brochure

A new brochure for wholesale customer's business customers is now being planned. The brochure will list incentives and conservation programs in which businesses are eligible. Staff would like input from our wholesale partners as to the look of the new brochure, which will be completely focused on water conservation as a way to help their bottom line. Wholesale conservation representatives should be prepared to participate in the next

quarterly conservation meeting to discuss this issue and how best to proceed.

CONTACT: Arece Hampton (206) 733-9137

#### WATER IN THE NEWS

# Press Release From the American Society of Microbiogy

Anthrax spores may survive water treatment - Anthrax spores may survive traditional drinking water disinfection methods and can attach themselves to the inside surface of water pipes, suggesting that water treatment facilities

should be prepared to employ alternate disinfection methods in the unlikely event of the release of anthrax in the water supply.

"The purpose of this study was to determine the fate of anthrax spores in a drinking water system that uses chlorine as a disinfectant. Though researchers have some knowledge of how other waterborne pathogens may survive or die in drinking water systems, little is understood about the fate of anthrax spores in chlorinated water systems."

Calomiris investigated the ability of anthrax spores to survive in water with a concentration of 1 milligram of chlorine per liter (typical tap water has a concentration of 1 to 2 milligrams per liter). After 60 minutes in the water, there was no significant decrease in the number of viable spores.

Higher concentrations of chlorine were much more effective. At 5mg/L (a concentration that might be used by treatment systems during periods when drinking water is turbid) 97 percent of spores were killed after one hour. At 10mg/L (similar to a highly chlorinated swimming pool) 99.99 percent were killed, but the chlorine concentration would be too high for the water to be drinkable.



Calomiris also tested the ability of spores to attach to the inside of pipes, by running contaminated water in a continuous loop through sections of pipe made of either copper, CPVC or galvanized iron (a material no longer used for home plumbing but existing in older construction). After 6 hours anywhere from 20 to 40 percent of spores had attached themselves to the surface of the copper and CPVC pipes, 95 percent attached to the iron pipes. When biofilms were present on the interior of copper pipes attachment increased to 80 percent.

"The data seem to suggest that anthrax spores can tolerate water treatment, can attach to pipes or biofilms within the pipes, and could pass through pipe systems to reach the consumer tap," says Calomiris.

In the unlikely event of the release of anthrax spores into the water supply, alternate

decontamination protocols (such as exposure to higher concentrations of chlorine or an alternate disinfectant for an extended period of time) may be needed as regular treatment methods may not be effective, he says.

The American Society for Microbiology (ASM) is the largest single life science society, composed of over 42,000 scientists, teachers, physicians, and health professionals.

Further information on the ASM Biodefense Research Meeting can be found online at www.asmbiodefense.org.

Full story:

http://www.eurekalert.org/pub\_releases/2006-02/asfm-asm021306.php



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